



MASSACHUSETTS MUNICIPAL WHOLESALE ELECTRIC COMPANY (MMWEC)

STONY BROOK

MMWEC picked for ISO winter reliability program

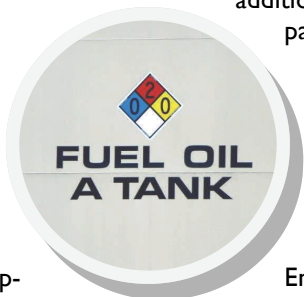
The Stony Brook power plant is among the generators picked by ISO New England to participate in its 2013-14 Winter Reliability Program, which endeavors to bolster electric system reliability from December 2013 through February 2014.

The program includes incentive payments to generators that agree to meet oil inventory at levels required to ensure reliability if natural gas supplies are constrained during these winter months due to cold weather. The Federal Energy Regulatory Commission approved the program on Sept. 16.

The approximate \$3.6 million in revenue related to MMWEC's participation in the program will help to offset costs of the program for the customers of MMWEC's Stony Brook participant utilities. The \$79 million estimated cost of the entire program will be paid by all New England electricity consumers, with about \$5.5 million of the total paid by all Massachusetts municipal utilities.

In addition to revenue from the Win-

ter Reliability Program, Stony Brook's participation in ISO-NE's winter location-aid forward reserve markets will generate additional revenue for Stony Brook participants, offsetting the higher regional costs of forward reserves.



These revenues are in addition to Forward Capacity Market revenues and reflect the benefits of asset ownership in the New England power marketplace, particularly for the vertically integrated Massachusetts municipal utilities, which unlike most investor-owned utilities have retained their energy asset ownership rights along with their load-serving obligations.

Winter Reliability

The Winter Reliability Program is a result of New England generator fuel shortages during a January cold snap and February blizzard last winter. The shortages, stemming largely from the region's growing reliance on natural gas for electric

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'Strong credit quality' of participants cited

A-level power project ratings reaffirmed by Fitch, S&P

Two major credit rating agencies recently affirmed their A-level ratings of MMWEC power supply projects and the Berkshire Wind Power Project.

Fitch Ratings has affirmed its A+ rating on the five MMWEC Power Supply Projects with outstanding debt, including Nuclear Mix No. 1 (Seabrook and Millstone), Nuclear Project No. 3 (Millstone), Nuclear Project No. 4 (Seabrook), Nuclear Project No. 5 (Seabrook), and Project No. 6 (Seabrook). Together, these projects have outstanding debt totaling about \$284 million.

MMWEC debt on the Power Supply Projects associated with MMWEC's ownership in the Stony Brook and Wyman

power plants has been retired.

Separately, Standard & Poor's Ratings Services (S&P) has affirmed its MMWEC project ratings, including an A+ rating on Nuclear Mix No. 1, Project No. 3 and Project No. 4; an A rating on Nuclear Project No. 5 and an A- rating on Project No. 6. S&P also affirmed its A- rating on the Berkshire Wind Power Project.

All of MMWEC's outstanding debt is scheduled for retirement no later than 2019, while the Seabrook and Millstone nuclear units are licensed to operate until 2030 and 2045, respectively, with Seabrook in the process of seeking a license extension until 2050.

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Power Prices	
Year	Price*
2014	\$52/mwh
2015	\$51/mwh
2016	\$50/mwh
2017	\$48/mwh
*Price is representative of recent around-the-clock prices.	

Hedges yield savings; Interval purchases bring price stability

Goals of MMWEC's power supply hedging program include reduced exposure to market volatility and rate stability over time for member utilities.

The success of the program was apparent in July, when summer loads typically peak. On July 19, the fourth highest all-time demand day, New England's peak power spiked as high as \$868/megawatt hour and averaged \$334 for the day. The average price of MMWEC power hedges was \$57.10/megawatt hour for the month of July, saving MMWEC members about \$250,000 for the month.

Hedging members' power supplies involves entering into contracts for future power at systematic intervals for a small portion of the total requirement. This is effectively "dollar cost averaging" for the power hedge portfolio. This allows for multiple hedge purchases to dampen price volatility as the power market reacts to changing news. Hedge purchases are made in consultation with member utilities to reflect individual utility risk tolerances and objectives.

Hedged power prices are above or below market prices at any given time but are always within a band of reasonableness to ensure long-term rate stability. MMWEC has agreements with numerous counterparties, or power selling entities, which enables MMWEC to capture lower prices on bulk power purchases while simultaneously diversifying counterparty risks and credit exposure.

Stony Brook picked for winter reliability initiative Continued from Page 1

generation and limited natural gas pipeline capacity, threatened the reliability of New England's power grid. Natural gas and power prices spiked significantly during this period, costing consumers at least an additional \$60 million in uplift charges.

Based upon load projections if New England experiences an historically cold winter this year, ISO-NE estimated the region needs enough oil in storage during the winter months to generate about 2.4 million megawatt hours (MWh) of electricity. Oil and dual-fueled generators submitted bids to ISO-NE to receive incentive payments for maintaining these additional fuel oil inventories.

ISO-NE received bids offering to purchase and store oil sufficient to produce 2.29 million MWh at a cost of \$114.3 million. It decided to accept bids sufficient to produce 1.9 million MWh at a cost of \$79 million. ISO-NE also accepted bids to provide 3,780 MWh of demand response as part of the program.

Bids from MMWEC and its member utilities in Shrewsbury and Peabody were accepted into the reliability program.

Another unit owned in part by MMWEC, Wyman Unit No. 4, also was bid into the program and accepted by ISO-NE. MMWEC owns 3.7% of the Wyman unit and its share of the Winter Reliability Program incentive will be approximately \$443,000.

In its filing to the FERC, ISO-NE said it believes the procurement program "appropriately balances concerns about reliable operations during Winter 2013-14 with those related to the costs that will ultimately be borne by ratepayers."

The winter program also provides dual-fuel generators such as Stony Brook with greater flexibility in bidding on oil or gas as well as compensation based upon the fuel actually used.

Reserve Payments Increase

Stony Brook Peaking Units 2A and 2B both cleared in ISO-NE's recent Ten Minute Non-Spinning Reserve (TMNSR) auction for the period from October 2013 through May 2014.

As a result, the units have an obligation to provide locational forward reserves during this period and will receive a total of \$8.45/kw month in capacity payments, which is significantly higher than the \$3.30/kw month paid for the same service provided by Stony Brook last year.

Due to an upturn in the reserve markets, MMWEC decided to bid one of the Stony Brook Intermediate units into the Thirty Minute Operating Reserve Market. Consequently, Intermediate Unit 1B cleared the market auction and will receive a total of \$6.29/kw month in capacity payments.

Prices in the forward reserve markets have spiked significantly in the past year since ISO-NE increased reserve requirements and implemented stricter auditing rules to ensure reserve capacity availability. Changes in these markets reflect heightened concern about system reliability, driven by uncertainties regarding the region's natural gas supply.

Recertified Rotor

A recertified rotor will be installed in Intermediate Unit 1A during a late-September, scheduled outage. Recertification of the rotor, previously installed in Unit 1C, was required to keep the rotor in service after it reached the manufacturer's limit on starts.



Stony Brook has 17.3 million gallons of oil storage capacity, primarily in the plant's two, 8.4-million gallon oil tanks, above.

A-level power project ratings reaffirmed Continued from Page 1

"This means that the nuclear units will be operating long after the related debt is retired, adding significant value to these resources for MMWEC project participants," said MMWEC Chief Executive Officer Ron DeCurzio.

In reviewing MMWEC's credit standing, rating agencies examine numerous factors, including project operations and the ability of project participants to pay their share of MMWEC's debt service. MMWEC sells the output of its projects to 28 Massachusetts municipal utilities and one Rhode Island utility under contracts that require the utilities to pay their share of project costs, including the debt service on MMWEC bonds.

"The strong credit quality of the participants, nearly all of which are part of multiple MMWEC projects, underpins the A+

ratings on the project bonds," according to Fitch. "The participants maintain strong financial positions, little to no electric system debt, and full rate-setting authority over their currently competitive retail rates," the Fitch rating states.

S&P also finds strength in the financial positions of MMWEC's project participants, including low retail rates, local rate-setting authority, strong liquidity, limited capital requirements and a supportive regulatory environment.

"A supportive regulatory environment provides some insulation from competitive forces," according to S&P. "The municipal light departments that participate in these projects have the option, but not the obligation, to open their service territories to competition, and we note that none have opted to do so," the S&P rating states.

MILLSTONE UNIT NO. 3

MMWEC eyes progress on site excellence plan; CT generation tax to expire

MMMWEC and its nuclear oversight consultant are monitoring progress on a Site Excellence Plan developed for Millstone Station by Dominion Resources, lead owner and operator of Millstone Unit 3.

MMWEC owns 4.8% of Unit 3 and sells the output from its ownership at cost to 27 Massachusetts municipal utilities.

The Site Excellence Plan is being implemented to improve Dominion's organizational effectiveness in managing and operating Millstone Station. MMWEC's nuclear oversight consultant, Polestar Applied Technology, identified a need for improvements in order to achieve the "regulatory margin" sought by MMWEC in plant operations, which requires that regulatory requirements be exceeded. MMWEC and Polestar conducted an on-site inspection at Unit 3 in August to confirm progress on various aspects of the Site Excellence Plan.

"Dominion's performance is at a level that meets all regulatory standards and requirements," said Ed Kaczinski, MMWEC's Director of Engineering and Generation Assets. "At MMWEC, we seek performance that delivers what we call a regulatory margin, which means performance is at a level above what is required," he said.

Generation Tax Expiring

The Connecticut tax on electric generation is set to expire at the end of September 2013, which will save MMWEC, its Millstone participants and their consumers approximately \$1.2 million/year.

Connecticut enacted the tax in July 2011, putting a levy of 0.25

cents/kilowatt hour on electricity generated within the state. MMWEC disputed the tax as it applied to Massachusetts political subdivisions, including MMWEC and the 27 Massachusetts municipal utilities that purchase Millstone power from MMWEC.

Over the past two years, Dominion has billed MMWEC for 4.8% of the tax on Millstone Unit 3 generation, costing MMWEC and its municipal utilities about \$2.4 million, which has been paid under protest.

The tax was set by law to expire on June 30, 2013. However, in his state budget for fiscal years 2013 and 2014, Connecticut Governor Dannel Malloy proposed extending the tax for an additional two years, through June 30, 2015.

Extension of the generation tax was opposed by MMWEC, Dominion and others, including the attorneys general from Massachusetts and Rhode Island. In a compromise between the governor and legislators during budget deliberations, the Connecticut General Assembly in June approved legislation extending the generation tax for a 3-month period, from July 1, 2013 through Sept. 30, 2013.

The extended generation tax is expected to cost MMWEC and its Millstone project participants approximately \$327,000. At the

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BERKSHIRE WIND

Improved operations, higher market prices yield better financial performance

An improved operating record and higher prices for its products have led to better financial performance for the Berkshire Wind Power Project in 2013.

Berkshire Wind operated at a year-to-date capacity factor of 39.7% through July 2013, reflecting both improved availability of the project and better wind conditions on Brodie Mountain in Hancock, MA, home to the 10-turbine, 15-megawatt wind project.

At the same time, high energy clearing prices in the New England power market during January and February as well as higher Renewable Energy Certificate (REC) prices have increased the project's revenue stream, thereby reducing net operating costs for project participants.

MMWEC staff continues to respond to events at the site, including turbine trips, in order to maximize the project output and minimize maintenance costs. MMWEC staff includes several qualified "climbers" who perform some maintenance tasks at the nacel level and assist General Electric and its contractors with maintenance and repair work.

MMWEC evaluated potential single points of failure in the project's substation and distribution circuit, focusing on items that could render the project inoperable. Spares of such items that have a long lead time for delivery are now kept in stock to minimize project down time.

MMWEC also provides offsite monitoring of project opera-

tions from the Stony Brook Energy Center.

A tour of the project was conducted during the summer for science and energy teachers participating in the Educating for Clean Energy Program, a professional development program for high school and community college teachers, funded with a grant from the Massachusetts Clean Energy Center.

The project also hosted more than 20 undergraduate and graduate students working as summer interns at ISO New England.

A tour of the project for the 14 municipal utility members of the Berkshire Wind Power Cooperative is scheduled for Oct. 4.



Project Operations YTD Through July 2013						
	Seabrook Station	Millstone Unit 3	Berkshire Wind	Stony Brook Int.	Stony Brook Pk.	Wyman Unit 4
Availability	100%	83.5%	96%	93.4%	99.5%	96.8%
Capacity	100.1%	82.6%	39.7%	4.95%	0.22%	3.7%

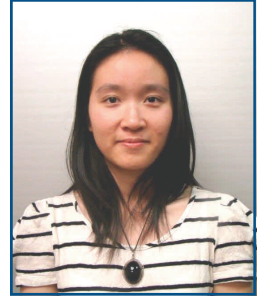
POWER PROFILE

An Pham, Power Supply Analyst

An Pham is an MMWEC Power Supply Analyst, responsible for assisting with planning activities of the Market Management and Planning business unit. Her job includes providing statistical analysis of electricity market information, developing load forecasts and performing economic evaluations of power supply options and strategies using different power system models.

Before joining MMWEC in June, An worked for two years as a Graduate Research Assistant at the University of Massachusetts in Amherst, where she conducted research on water resources management and climate change planning in the Northeast and Southwest.

An holds a bachelor's degree in Mathematics from Coe College and a master's degree in Industrial Engineering from UMass Amherst. She can be reached by telephone at (413) 308-1315 or by email at apham@mmwec.org.



An Pham

Rick Gardner, Records Management Specialist

Rick Gardner is MMWEC's new Records Management Specialist working for the Business Support and Administrative Services business unit. Reporting to Kathy Bassford, Rick is responsible for all functions related to compliance with state and federal corporate records requirements and for advancing the corporate records management program in accordance with applicable laws and regulations.

Prior to joining MMWEC in June, Rick worked for General Dynamics Corp. for over 31 years - his last seven years as the Director of Risk and Records Management.

Rick received his bachelor's degree in Economics/Finance from Bentley College in Waltham, MA. He can be reached at 413-308-1273 or my email at rgardner@mmwec.org.



Rick Gardner

Millstone Unit 3 updateContinued from Page 3

end of September 2013, the tax will expire.

Cooling Water Temperature

Dominion is asking the Nuclear Regulatory Commission and Environmental Protection Agency to raise the point at which the temperature of cooling water from Long Island Sound would require Millstone to shut down. The request seeks a five degree increase in the maximum allowed temperature of cooling water in current permit specifications, from 75 to 80 degrees Fahrenheit.

In the summer of 2012, Millstone Unit 2 was forced to shut down when the inlet temperature of cooling water rose to 75 degrees for the first time in the history of Millstone operations. The

cooling water intake pipes for Unit 3 draw water from a deeper, colder part of Long Island Sound, so the Unit 3 cooling water never reached the 75 degree limit and remained in operation.

During the summer of 2013, the temperature of Unit 3 cooling water remained under 72 degrees and the temperature of Unit 2 cooling water remained under 75 degrees, so the issue did not impact plant operations.

In applying for the change in permit temperature, Dominion submitted engineering analyses detailing how the use of warmer cooling water would affect the operations at Units 2 and 3. In June, the NRC requested additional information. A decision by the agencies is expected before the summer of 2014.



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More about ...

Power Supply Portfolio Management

- MMWEC's Power Supply Portfolio Management services are tailored to meet the individual needs of its Member utilities, encompassing power supply planning, market analysis, resource development, contracting and risk management.
- MMWEC works with individual Members to establish risk tolerance levels and portfolio goals to ensure an appropriate mix of resources, including fuel-diversified generation resources, demand and efficiency resources, forward purchase contracts, renewable and other resources.
- Technology and data management systems enable MMWEC to monitor fuel prices and marketplace activity, conduct a wide range of purchase analyses and complete transactions with greater efficiency and economy.
- Risk management includes the assessment of counterparty risks, enabling MMWEC to identify and secure adequate financial assurance from its trading partners.